

The Landfill Allowance Scheme
Regulations (2004) Northern Ireland
(NILAS)

2007/08 Annual Report

October 2008

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Contents

Executive summary

List of acronyms

- 1. Introduction**
 - 2. Reporting**
 - 2.1 District Councils**
 - 2.1.1 Validation process**
 - 2.1.2 WasteDataFlow Northern Ireland User Group**
 - 2.1.3 WasteDataFlow Training**
 - 2.2 Landfill Operators**
 - 2.2.1 Validation process**
 - 2.2.2 Landfill Operator Data Audit**
 - 3. District Council Data Audit**
 - 4. Reconciliation Process**
 - 5. District Council Performance**
 - 5.1 Looking Forward to the First Landfill Directive Target Year 2009/10**
 - 5.2 Northern Ireland Waste Compositional Study 2007/08**
 - 5.3 The Landfill Allowances Scheme (Amendment) Regulations (Northern Ireland) 2008.**
-
- Annex A Regulation 14 Final Reconciliation by District Council**
 - Annex B Northern Landfill Allowance Scheme Allocations**
 - Annex C Method of calculating Mass Balance from WasteDataFlow for NI District Council**

Executive Summary

This report covers the third scheme year of the Landfill Allowance Scheme (NI) Regulations 2004 and summarises district council compliance with the scheme.

All 26 district councils in Northern Ireland achieved their 2007/08 landfill allowance obligations by both diverting Biodegradable Municipal Waste (BMW) from landfill and, where necessary transferring allowances.

In 2007/08, the total amount of BMW which was permitted to be sent to landfill was 641,235 tonnes. The total amount of BMW reported to have been sent to landfill was 510,205 tonnes. In 2007/08, 20.43% of landfill allowances were not utilised, a positive increase from the 18.3% not utilised in 2006/07. Over the last 3 years of NILAS Northern Ireland has reduced the amount of BMW sent to landfill by 47,804 tonnes.

The Southern Waste Management Group (SWaMP) sent 130,706 tonnes to landfill, 25.18% less than their allocated allowances.

In the North West Regional Waste Management Group (NWRWVG), two district councils were involved in the transfer of landfill allowances: Coleraine Borough Council had a deficit of 126 allowances. Therefore, Ballymoney Borough Council transferred 126 allowances to Coleraine Borough Council, which allowed them to meet their obligations under the Regulations. This continues to demonstrate the flexibility and the partnership working of the scheme.

The amount of BMW sent to landfill in the NWRWVG was 98,763 tonnes, 18.58% less than their allocated allowances.

The amount of BMW sent to landfill by the arc21 Waste Management Group (WVG) was 280,735 tonnes, 18.69 % less than their allocated amount.

After the final reconciliation, Armagh City and District Council, Banbridge District Council and Castlereagh Borough Council had a surplus of allowances exceeding 40% of their allocations. Magherafelt District Council and Omagh District Council had a surplus of allowances exceeding 30% of their allocation. Antrim Borough Council, Ballymoney Borough Council, Derry City Council, Down District Council, Limavady Borough Council, Cookstown District Council, Craigavon Borough Council, Lisburn City Council, Newry and Mourne District Council, North Down Borough Council had a surplus of allowances exceeding 20% of their allocations. Fermanagh District Council had less than 10% of their allocation as surplus at the end of the scheme year.

Over the next 12-13 years the allocations for each district council, and Northern Ireland as a whole, progressively reduce making it vital for more BMW to be diverted from landfill. In 2008/09, 626,925 tonnes of BMW can be sent to landfill in Northern Ireland, This amount further reduces to 470,000 tonnes in 2009/10, the first Landfill Directive target year.

Moreover, the three WMGs revised Waste Management Plans detail how they propose to deal with Northern Ireland's waste up to 2020. The plans set out the range of facilities required to deliver both the strategic and Northern Ireland Landfill Allowance Scheme (NILAS) targets.

There were fifteen district councils with a surplus of more than 20% of landfill allowances from their 2007/08 scheme year allocation.

From a WMG regional perspective, SWaMP as a whole has the greatest headroom in relation to its landfill allowance utilisation. SWaMP district councils collectively utilised 74.82% (surplus of 25.18%) of their allocated landfill allowances, with 6 out of the 8 district councils having a surplus of more than 20% of their allocation.

The Environment and Heritage Service (EHS) became the Northern Ireland Environment Agency (NIEA) on 1st July 2008..

List of Acronyms

AA	Allocating Authority
BMW	Biodegradable Municipal Waste
CIWM	The Chartered Institution of Wastes Management
Defra	Department of Environment, Food and Rural Affairs
EHS	Environment and Heritage Service
EWC	European Waste Catalogue
MA	Monitoring Authority
NIEA	Northern Ireland Environment Agency
NILAS	Northern Ireland Landfill Allowance Scheme
NWRWGM	North West Regional Waste Management Group
SWaMP	Southern Waste Management Partnership
WDF	WasteDataFlow
WET Act	Waste and Emissions Trading Act
WMG	Waste Management Group
WMP	Waste Management Plan
P&EPG	Planning and Environmental Policy Group

1. Introduction

The NILAS Regulations came into operation in Northern Ireland on 1st April 2005 hence, 2007/08 is the third scheme year. The scheme is designed to ensure the amount of BMW sent to landfill is reduced through setting limits on the amount of BMW that can be sent to landfill on an annual basis by each district council.

The NILAS Regulations, made under the WET Act 2003, have been designed to ensure that Northern Ireland meets its targets as set out in the Landfill (Scheme Year and Maximum Landfill Amount) Regulations 2004 by allocating progressively challenging limits on the amount of BMW which can be landfilled by each district council.

Article 5(2) of the EU Landfill Directive (1999/31/EC) requires member states to reduce the amount of BMW sent to landfill through setting challenging targets.

The targets for the reduction of BMW landfilled are:

- To reduce by 2010 the quantity of BMW landfilled to 75% of that produced in 1995
- To reduce by 2013 the quantity of BMW landfilled to 50% of that produced in 1995
- To reduce by 2020 the quantity of BMW landfilled to 35% of that produced in 1995

The Regulations place a statutory responsibility on district councils, in each scheme year, to landfill only the quantity of BMW they have allowances for. To exceed this may result in financial penalties of £150 per tonne of exceeded allowance (Landfill Allowances Scheme (Amendment) Regulations (Northern Ireland) SR 2005/588)

The scheme facilitates the transfer and borrowing (with restrictions e.g. allowances cannot be borrowed in a target year or in the year preceding a target year) of allowances between district councils which promotes a flexible and partnership working arrangement. The scheme in Northern Ireland does not currently facilitate the trading of landfill allowances.

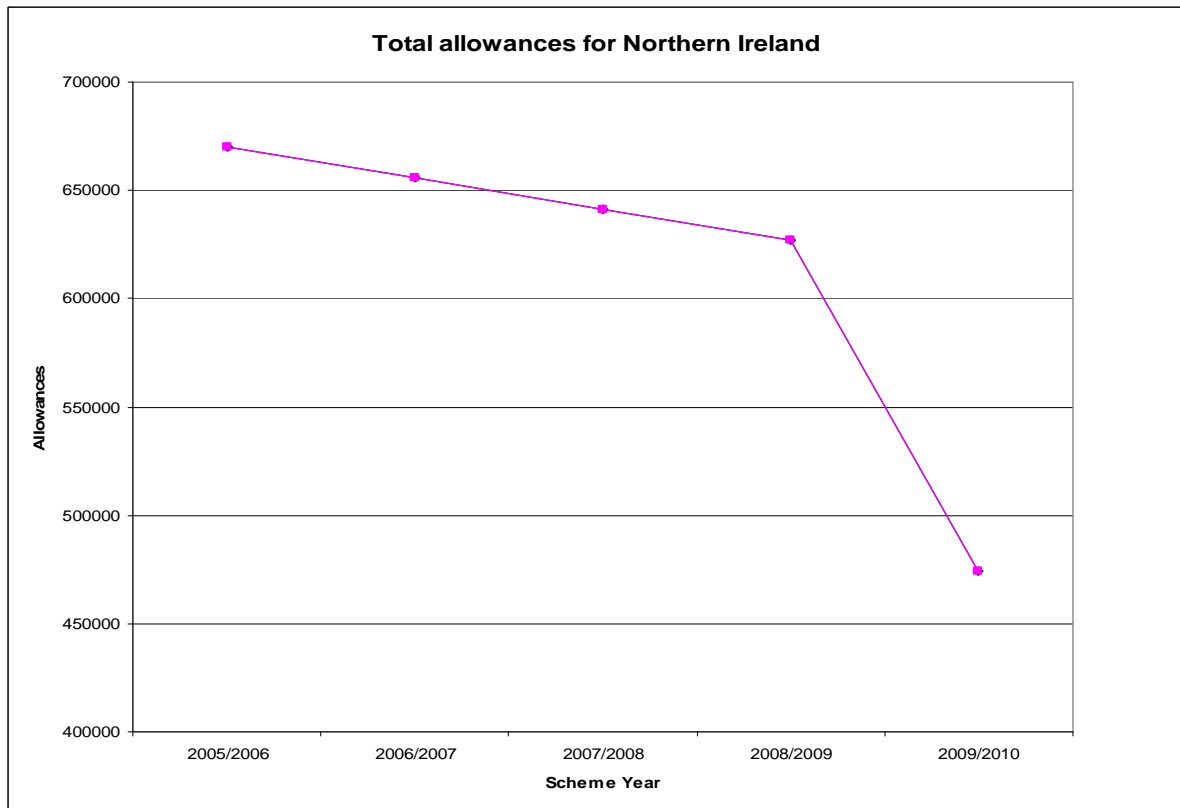
One allowance represents one tonne of BMW that can be sent to landfill.

The Planning & Environmental Policy Group (P&EPG) of the Department of Environment (DOE), as allocating authority have allocated allowances to each district council for every year of the scheme from 2005/06 until 2019/20. During the spring of 2008 PEPG undertook a review of the operation of the scheme (www.doeni.gov.uk/nilas_review_report.pdf). As part of the outcomes of this review EHS undertook a review of the guidance it had issued since the implementation of the scheme. Guidance was reissued in August 2008 to both district councils and landfill operators (www.ni-environment.gov.uk/waste/waste-guidance.htm).

The methodology for allocating allowances to each district council was selected after a consultation process. A proposal for a straight line reduction between 2005/06 and 2009/10 was rejected. The allocation for the first year of the scheme was chosen so as to reflect as closely as possible the then current landfilling practice. The total amount of BMW sent to landfill in 2002, 669,885 tonnes, was chosen as the start point for the 2005/06 allocations. This total was divided proportionately between the district councils on the basis of landfill practice in 2003 (most up to date data set available). For subsequent years, the consultation set out two options for allocation: immediate and gradual convergence to a population-based methodology. The method chosen and implemented was 'early convergence applying simple population'. Details of this methodology can be found at: www.doeni.gov.uk/index/information/foi/recent-releases/publications-details.htm?docid=2587

Figure 1 shows the profile of the total amount of BMW that can be landfilled until the first Landfill Directive target year. The three WMGs, through their Waste Management Plans, have detailed a range of facilities that will need to be delivered to meet these targets.

Figure 1:



England, Scotland and Wales have their own specific Landfill Allowance Regulations:

England: www.opsi.gov.uk/si/si2004/20043212.htm

Scotland: www.opsi.gov.uk/legislation/scotland/ssi2005/20050157.htm

Wales: www.opsi.gov.uk/legislation/wales/wsi2004/20041490e.htm

2. Reporting

2.1 District Councils

District councils in Northern Ireland are required to report data on municipal waste arisings on a quarterly basis as per NILAS Regulation 10 (5). The data for each quarter must be submitted to the Monitoring Authority within 2 months after the relevant quarter end. Table 1 shows the NILAS reporting deadlines in each scheme year. District councils must submit their data via the WasteDataFlow (WDF) system. WDF is a web based system, initially developed by CIWM (www.wastedataflow.org). WDF was launched in 2004.

WDF is now owned, operated, and managed by Defra in partnership with the UK's devolved administrations through an Operational Group, and Programme Management Board.

Northern Ireland district councils began formally reporting municipal waste data via WDF from January 2005.

Data is managed within the system through various user levels representing district councils, WMGs, NIEA and public access. After the final reconciliations have been issued by NIEA the data for the scheme year is made available to the public on WDF. A member of the public must register with WDF and can then download the raw data in an excel spreadsheet format.

Table 1 NILAS reporting deadlines

Quarter	Period in scheme year	Return MUST be submitted by:
1	1 st April – 30 th June	31 st August
2	1 st July – 30 th September	30 th November
3	1 st October – 31 st December	28 th February
4	1 st January – 31 st March	31 st May

Data is deemed to have been submitted to NIEA at level 35 on WDF. The following tables illustrate when data was submitted to level 35 by NIEA during the scheme year. For comparison, the date when the data was approved to WMG at level 30 is also provided.

During the course of the 2007/08 scheme year an 'e-mail notification alert' has been introduced aimed at improving the timeliness of returns. The relevant users, at each submission level, are informed by an automatically generated email that data is awaiting their approval and submission to the next level. This measure has assisted in improving the timeliness of data being submitted by the relevant deadline over the course of the third scheme year.

Table 2a: Date when data was submitted to WMG (level 30), and NIEA (level 35)

District Council	Q1		Q2		Q3		Q4	
	Level 30	Level 35	Level 30	Level 35	Level 30	Level 35	Level 30	Level 35
Antrim BC	25/08/07	28/08/07	30/11/07	03/12/07	28/02/08	03/03/08	06/06/08	09/06/08
Ards BC	21/08/07	21/08/07	22/11/07	26/11/07	19/02/08	20/02/08	20/05/08	27/05/08
Armagh C&DC	24/08/07	31/08/07	13/11/07	20/11/07	11/02/08	11/02/08	21/04/08	21/04/08
Ballymena BC	17/08/07	21/08/07	26/11/07	27/11/07	26/02/08	27/02/08	27/05/08	27/05/08
Ballymoney BC	30/08/07	05/09/07	23/11/07	23/11/07	26/02/08	04/03/08	29/05/08	30/05/08
Banbridge DC	23/08/07	23/08/07	21/11/07	21/11/07	25/02/08	25/02/08	20/05/08	20/05/08
Belfast CC	29/08/07	29/08/07	26/11/07	27/11/07	29/02/08	03/03/08	30/05/08	30/05/08
Carrickfergus BC	29/08/07	29/08/07	23/11/07	26/11/07	19/02/08	20/02/08	20/05/08	27/05/08
Castlereagh BC	30/08/07	30/08/07	26/11/07	26/11/07	18/02/08	18/02/08	27/05/08	27/05/08
Coleraine BC	21/08/07	05/09/08	30/11/07	30/11/07	29/02/08	04/03/08	27/05/08	30/05/08
Cookstown DC	30/08/07	31/08/07	29/11/07	30/11/07	29/02/08	29/02/08	30/05/08	30/05/08
Craigavon BC	01/09/07	01/09/07	20/11/07	23/11/07	22/02/08	22/02/08	02/06/08	02/06/08
Derry CC	03/09/07	05/09/07	30/11/07	30/11/07	26/02/08	04/03/08	10/06/08	10/06/08
Down DC	22/08/07	23/08/08	23/11/07	26/11/07	13/02/08	15/02/08	29/05/08	29/05/08
Dungannon & South Tyrone BC	24/08/07	31/08/07	23/11/07	26/11/07	22/02/08	22/02/08	16/04/08	16/04/08
Fermanagh DC	31/08/07	31/08/07	27/11/07	27/11/07	29/02/08	29/02/08	19/06/08	19/06/08
Larne BC	30/08/07	30/08/07	03/12/07	04/12/07	27/02/08	28/02/08	30/05/08	30/05/08
Limavady BC	21/08/07	05/09/07	30/11/07	30/11/07	29/02/08	04/03/08	30/05/08	01/06/08
Lisburn CC	22/08/07	22/08/07	29/11/07	29/11/07	25/02/08	25/02/08	27/05/08	28/05/08
Magherafelt DC	31/08/07	05/09/07	30/11/07	30/11/07	29/02/08	04/03/08	30/05/08	30/05/08
Moyle DC	30/08/07	05/09/07	23/11/07	23/11/07	25/02/08	04/03/08	20/05/08	21/05/08
Newry & Mourne DC	30/08/07	31/08/07	29/11/07	30/11/07	27/02/08	27/02/08	29/05/08	30/05/08
Newtownabbey BC	23/08/07	28/08/07	22/11/07	26/11/07	29/02/08	29/02/08	28/05/08	29/05/08
North Down BC	30/08/07	30/08/07	29/11/07	29/11/07	25/02/08	25/02/08	28/05/08	28/05/08
Omagh DC	09/08/07	14/08/07	22/11/07	26/11/07	14/02/08	14/02/08	29/05/08	30/05/08
Strabane DC	31/08/07	05/09/07	30/11/07	30/11/07	22/02/08	04/03/08	23/05/08	23/05/08

- Red font denotes late return.
- Blue denotes return received one day after deadline.
- Green font denotes return made on or before deadline.

Table 2b: Date by which all returns submitted to level 35:

Waste Management Group	Q1	Q2	Q3	Q4
Arc21	30/08/07	04/12/07	03/03/08	09/06/08
NWRWMG	05/09/07	30/11/07	04/03/08	10/06/08
SWaMP	01/09/07	30/11/07	29/02/08	19/06/08
% received at level 30 (WMG) by deadline:	92.31%	96.15%	100%	84.62%
% received at level 35 (EHS) by deadline or within one day of the deadline:	69.23%	92.31%	65.28%	84.62%

2.1.1 Validation Process

On receipt of data the Monitoring Authority conducts a qualitative assessment of the municipal waste arisings data in WDF. The validation process involves cross checking figures between questions and previously submitted quarterly returns. Any anomalies or discrepancies are queried with the relevant district council. Queried data for the relevant quarter is rejected back to the WMG who then reject data to the relevant district council to facilitate the amendment, where applicable, of queried data. The data can normally only be entered and amended at district council level.

To assist district councils with self validation a summary spreadsheet has been developed within WDF. This enables quick checks to be viewed easily eg. Comparison of reported tonnages collected for recycling with reported tonnages of the waste sent for recycling, BMW landfilled etc.

A spreadsheet detailing an indicative mass balance calculation has been developed to enable district councils to easily review the calculated amount of BMW sent to landfill in any particular quarter and hence monitor their progress towards meeting their obligations under NILAS.

The Monitoring Authority aims to complete the validation of all returns within one month of the relevant deadline. NIEA requests that a response is made to all validation queries within 5 working days to ensure this deadline is met, and to enable the production of accurate municipal waste statistics for district councils, WMGs and Northern Ireland.

During the course of the scheme NIEA began to publish quarterly municipal waste data on the Agency's website in line with commitments given during evidence to the House of Commons Public Accounts Committee in 2006 on the Northern Ireland Waste Management Strategy (www.publications.parliament.uk/pa/cm200506/cmselect/cmpubacc/741/741.pdf). This data is available on the NIEA website at:

www.ni-environment.gov.uk/waste/municipal_data_reporting.htm.

As the year progressed the number and size of queries regarding most district council returns remained relatively constant. However, not all district councils appeared to be familiar with the generation of the 'material summary spreadsheets' which enable users to perform a degree of self validation of data prior to submission to NIEA

However, the WasteDataFlow User Group provides a forum for sharing information and ensures that district councils are made fully aware of new developments, aimed to assist them as system users.

2.1.2 WasteDataFlow Northern Ireland User Group

On 10th July 2007 NIEA hosted the inaugural Northern Ireland WasteDataFlow User Group with the aim of contributing to making WasteDataFlow a successful data capture and reporting system with a high level of timely good quality data returns from district councils in Northern Ireland.

The main objective is to provide a reliable database of waste management information, with reporting functions available at a district council, regional WMG and Northern Ireland level.

The Group aims to achieve this by:

- identifying barriers to the effective use of the WDF system by district councils
- proposing practical solutions to these barriers. For example through specific proposals on contents of on-line help, Guidance Manual, revisions to questions, adjustments to web-based data screens, reporting functionality etc.

- identifying and sharing good practices in waste data management.
- Facilitating communication within the WasteDataFlow community
- Providing input to reporting developments.

The User Group enables NIEA to provide an element of training to district council users involved in the entry of data through demonstrations of the reporting functionality etc. It also provides a forum for dialogue between the Monitoring Authority, District Councils and the Regional WMGs.

Minutes of the User Group are available after ratification by the members on the NIEA website (www.ni-environment.gov.uk/waste/municipal_data_reporting.htm).

2.1.3 WasteDataFlow Training

NIEA has conducted a number of ad hoc training events to update district councils and to provide training opportunities for any new staff on an 'as needed basis' during the course of the scheme year.

2.1.4 WasteDataFlow Guidance

NIEA undertook a review of the guidance issued to district councils in light of the recommendations of the review of the scheme by PEPG. The guidance has been reissued and was made available on the NIEA website in August 2008 (www.ni-environment.gov.uk/nilas_guidance_to_dcs_august_2008.pdf).

2.2 Landfill Operators

Under NILAS Regulation 11 (4), landfill operators are required to report, in each year, the amount of municipal waste sent to landfill at their sites. In 2007/08, landfills in Northern Ireland reported accepting municipal waste. Municipal waste data from landfill operators is required within 2 months of the quarter end.

Landfill operator returns are submitted electronically to NIEA using the 'Landfill Operator – Municipal Waste Data Return Form (NILAS 001)'

(www.ni-environment.gov.uk/nilas_landfilloperatorreturnssheet.xls). The return includes the following information:

- Weight of each load (to the nearest tonne);
- EWC code;
- District council area where the waste originates.

2.2.1 Validation Process

The waste reported by landfill operators is cross checked with the returns from district councils submitted via WasteDataFlow.

When there is a variation of +/- 1% **and** more than 10 tonnes difference in the amounts reported between the landfill operator return and the district council return, the Monitoring Authority will query both sets of returns to determine the reason for the differences, and to enable rectification of one or both sets of data, if required.

Some variation between the amounts of municipal waste reported as sent to landfill by landfill operators and by district councils will be attributable to:

- Rounding errors – landfill operators report the weight of each load which is rounded to the nearest tonne;
- Private contractors may take municipal waste to landfill in the same collection vehicle as non-municipal waste and therefore an estimated apportionment is used;
- NIEA do not receive returns from landfill operators outside Northern Ireland;

- Accurate reporting by landfill operators is dependent on them knowing the origin of the waste. This can be difficult when waste arrives via intermediate stages such as transfer stations or material recovery facilities; this has increasingly become a factor in establishing an audit trail between the waste disposed off by district councils and landfill operators.

2.2.1.1 Guidance to Landfill Operators

2.2.2 NIEA undertook a review of the guidance issued to landfill operators to take into account the recommendations of the review of the scheme by PEPG. This guidance has been reissued and was made available on the NIEA website in August 2008 (www.ni-environment.gov.uk/guidanceforlandfilloperators.pdf).

Landfill Operator Data Audit

During the third scheme year landfill sites accepting municipal waste were audited. The following landfill sites were audited:

Table 3:

Landfill Operator:	Date of Audit:
Magheraglass (Cookstown District Council)	8 th April 2008
Drumnakelly (Down District Council)	21 st August 2008
Aughnagun (Newry & Mourne District Council)	7 th August 2008
DJ McKee & Sons	5 th September 2008
Tullyvar (Dungannon & South Tyrone Borough Council/ Omagh District Council)	26 th September 2008

The returns submitted by the landfill operator were compared with actual weighbridge dockets to validate the submissions made via the operator returns under the NILAS regulations. Records kept by landfill operators were in both paper and electronic form.

A sample of submitted data was selected from each landfill site to be audited. A random one week period within the quarter was audited. Any discrepancies found were discussed and resolved with the operator prior to the close of the audit.

Four of the five landfills audited presented satisfactory records. Waste Transfer Notes, invoices and weighbridge printouts were generally ordered and readily available. In general, the documentation matched or agreed closely with landfill return figures sent to EHS. There were, on occasions, some missing waste transfer notes, although this would not be unexpected due to the large volumes of traffic through a landfill. Where 'missing' dockets were discovered it was possible to track the tonnages using the weighbridge printouts. In one case however documentation was not available for approximately half of the quarter examined due to a changeover in the weighbridge system.

During the scheme year NIEA sought to obtain data on municipal waste sent to landfill via transfer stations. This work has enabled the capture of data for these waste material streams and helped to create a more robust audit and correlation between the data reported by district councils and that reported by landfill operators.

3. District Council Data Audits

Between 2007 and September 2008, the Monitoring Authority carried out audits of district council's municipal waste data submitted via WasteDataFlow during the scheme year. The audits were conducted under Regulation 10 (6)(a) of the NILAS Regulations. District councils were selected from each WMG. The district councils selected were contacted by telephone, letter and e-mail informing them of NIEA's intention to audit. The table below lists the councils selected and the dates of the audits.

Table 4:

District Council:	Date of Audit:
Castlereagh Borough Council	14 th & 15 th November 2007
Coleraine Borough Council	10 th January 2008
Dunagannon & South Tyrone Borough Council	1 st and 4 th February 2008
Ballymena Borough Council	5 th February 2008
Strabane District Council	15 th April 2008
Down District Council	21 st April 2008
Derry City Council	4 th August 2008
Newry & Mourne District Council	8 th August 2008

The audit involved checking and confirming relevant data which was submitted as a NILAS return to the Monitoring Authority via WDF.

One quarter of each District Council's municipal waste returns was selected, generally the most recent submission. The areas being inspected related to:-

1. landfilling of municipal waste .
2. Collection, recycling, reuse and recovery of municipal waste.
3. The standard of reporting / evidence for end destinations of recycled materials.

In each case documentation was requested relating to each waste stream. The documentation requested had to provide robust evidence of reported figures (e.g. waste transfer notes, invoices) and was compared against figures entered in WasteDataFlow, and in landfill operator returns. The type of documentation used to compile returns was noted as were the names of any intermediate facilities used. Where facilities had been used which were not considered to be final destinations, information on the final destination of the waste stream was also requested.

Records were requested to confirm the data entered for household and non-household residual waste collections e.g. regular household collections and civic amenity site skips. Evidence was sought as to how the various components of the residual waste stream were comprised, and the methodology utilised for the determination of the origin of the respective tonnages.

All records including weighbridge dockets and invoices were inspected and totalled for comparison with the figures entered in WasteDataFlow. Where minor discrepancies were discovered these were pointed out to the council officers concerned and rectified on the WDF system accordingly.

The majority of the audits were completed within one working day. In two cases additional time was required to complete the audit.

The systems used by district councils for the collection and storage of data were varied. The majority of data was held in a paper format, with relatively little being held in electronic form. Most of the data was easily, and readily, accessible. However, in the majority of cases the collection and storing of data was managed by one person thereby increasing the risk to the district council of a failure to make a timely submission should that person be unavailable for whatever reason e.g. sickness or leave.

It was noted that that there was variability in the standard of collation of information on the collection of waste streams both for disposal and recycling. The majority of district council's keep records in a paper based system with varying degrees of IT usage. In many cases the relevant information is well ordered and stored separately in easily accessible files. However several councils' documentation proved difficult to access thus requiring more time for the audit.

4. Reconciliation Process

The Monitoring Authority has a duty under NILAS Regulation 13 to calculate the amount of BMW sent to landfill by each district council for the scheme year and prepare a draft reconciliation. This must be completed no later than 5 months after the end of the scheme year. The mass balance is calculated via a mass balance approach (see Annex C or link below)

(www.wastedataflow.org/documents/NIDCWasteDataFlowMassBalanceCalculation.pdf).

NIEA delivered a draft reconciliation to each district council and waste management group on 12th August 2008. The final reconciliation was sent to each district council and WMGs on the 23rd September 2008.

There were no queries following the issuing of the final reconciliation.

5. District Council Performance

The scheme year 2007/08 was the third year of the scheme. In 2007/08 the total number of landfill allowances allocated was 641,235. Each allowance permits the landfilling of one tonne of BMW.

The total amount reported to have been sent to landfill was 510,205 tonnes. In 2007/08, 21.43% of landfill allowances were not utilised, a positive increase from the 18.3% not utilised in 2006/07. Over the last 2 years Northern Ireland has reduced the amount of BMW sent to landfill by 25,510 tonnes.

The Southern Waste Management Group (SWaMP) sent 130,706 tonnes to landfill, 25.18% less than their allocated allowances. SWaMP reduced the amount of BMW sent to landfill in 2007/08 compared with 2006/07 by 5,129 tonnes. Omagh District Council showed the largest decrease in BMW landfilled within the WMG over the two scheme years. All but 5 district councils decreased the amount of BMW sent to landfill in 2007/08 compared with 2006/07.

The amount of BMW sent to landfill by the arc21 Waste Management Group (WMG) was 280,735 tonnes, 18.69% less than their allocated amount. All but 2 district councils decreased the amount of BMW sent to landfill in 2007/08 compared with 2006/07.

In the North West Regional Waste Management Group (NWRWMG), two district councils were involved in the transfer of landfill allowances: Coleraine Borough Council had a deficit of 126 allowances. Therefore, Ballymoney Borough Council transferred 126 allowances to Coleraine Borough Council, which enabled them to meet their obligations under the Regulations. The amount of BMW sent to landfill by the WMG decreased from 104,258 tonnes in 2006/07 to 98,763 tonnes in 2007/08. All but two district councils in the NWRWMG increased the amount of BMW sent to landfill in 2006/07 compared with 2005/06.

The percentage of allowances utilised by each district council is shown in table 3 ranked according to the allowance allocation remaining at the end of the scheme year.

Over the next 12-13 years the allocations for each district council, and Northern Ireland as a whole, will progressively reduce making it vital for more BMW to be diverted from landfill. In 2007/08, 641,235 tonnes of BMW could be sent to landfill in Northern Ireland, reducing to 626,925 tonnes in 2008/09. This amount further reduces to 470,000 tonnes in 2009/10, which is the first Landfill Directive target year.

Table 4: Landfill Allowance Utilisation for 2007/08

District Council	BMW allowance 2007/08	BMW sent to landfill for scheme year 2007/08 (As reported)	Surplus allowances in 2007/08
Castlereagh Borough Council	24,745	13,882	56.10%
Armagh City & District Council	20,964	12,255	58.46%
Banbridge District Council	16,577	9,753	58.83%
Omagh District Council	18,678	12,004	64.27%
Magherafelt District Council	15,597	10,354	66.38%
Limavady Borough Council	12,860	9,304	72.35%
Antrim Borough Council	18,535	13,417	72.39%
Cookstown District Council	12,678	9,184	72.44%
Lisburn City Council	41,275	30,412	73.68%
Ballymoney Borough Council	105,951 ¹	8,048	75.96%
Down District Council	24,878	19,096	76.76%
Newry & Mourne District Council	34,127	26,259	76.94%
Craigavon Borough Council	31,141	24,657	79.18%
Derry City Council	40,253	31,900	79.25%
North Down Borough Council	28,894	23,239	80.43%
Ballymena Borough Council	22,344	17,990	80.51%
Carrickfergus Borough Council	14,549	11,802	81.12%
Dungannon & South Tyrone Borough Council	18,431	15,386	83.48%
Moyle District Council	6,207	5,211	83.96%
Larne Borough Council	11,575	9,769	84.39%
Strabane District Council	14,591	12,743	87.34%
Ards Borough Council	28,280	24,701	87.34%
Newtownabbey Borough Council	30,184	26,488	87.75%
Belfast City Council	99,985	89,939	89.95%
Fermanagh District Council	22,088	21,209	96.02%
Coleraine Borough Council	212,032 ²	21,203	100.00%

¹ Includes 126 allowances transferred to Coleraine Borough Council.

² Includes 126 allowances transferred from Ballymoney Borough Council

Figure 2 shows the calculated BMW for the second scheme year against the allowances allocated to each of the district councils.

Table 6 illustrates the differences between the amount of BMW landfilled by each district council in the second and third scheme years, and illustrates the % increase or decrease in BMW landfilled over the first three scheme years.

Figure 2: Landfill Allowance Utilisation for 2007/08 scheme year.

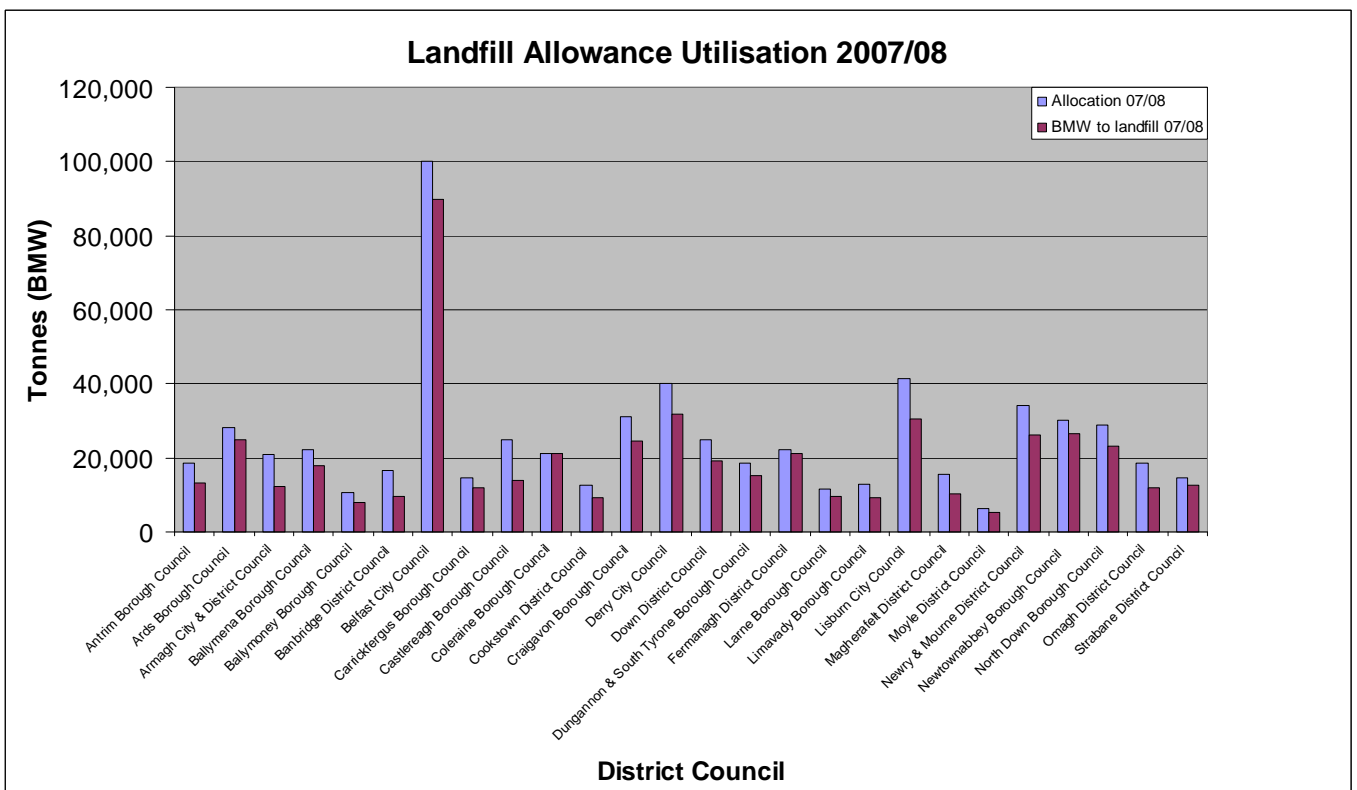


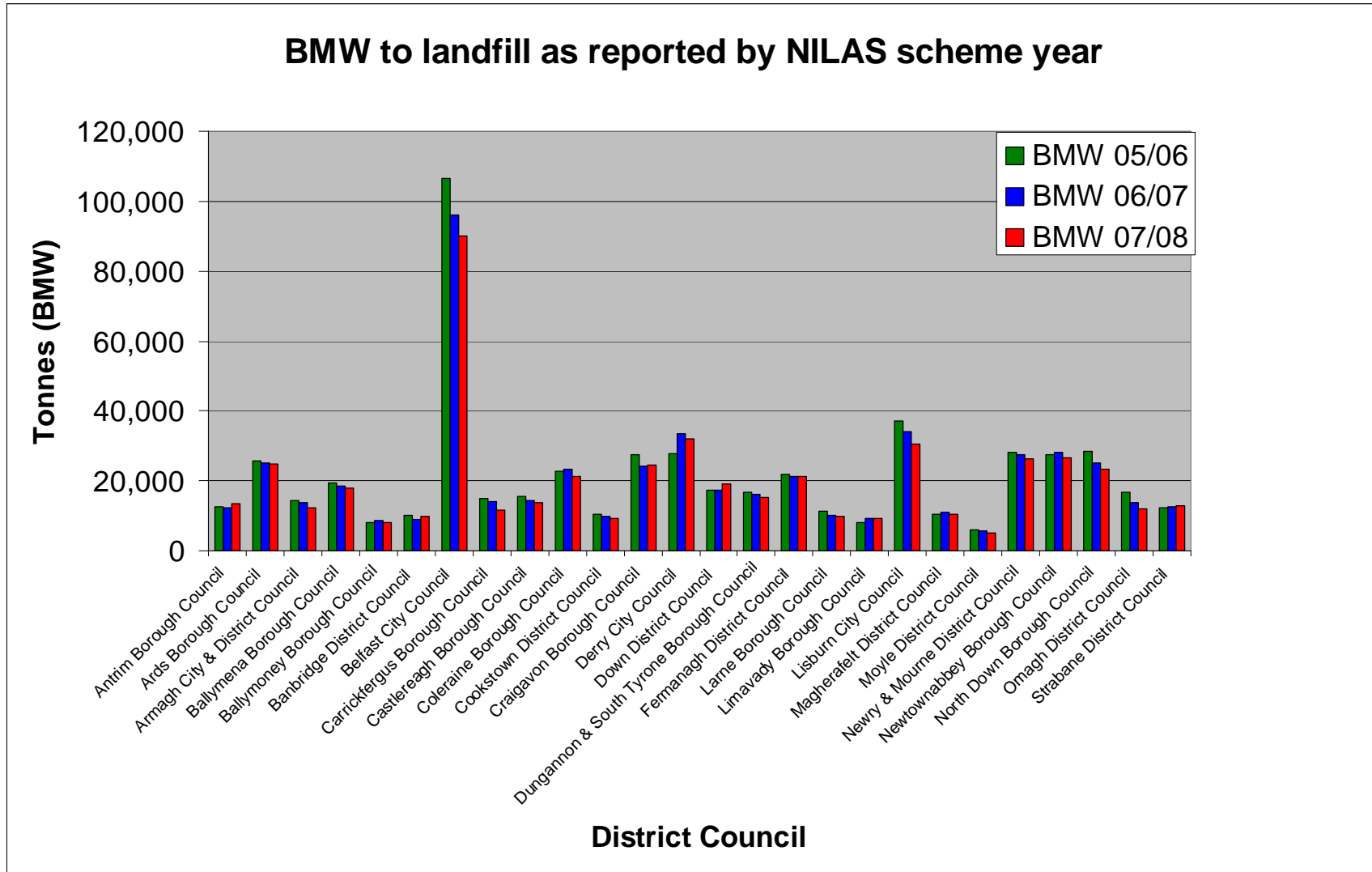
Table 6: Difference between first, second and third scheme years of NILAS in BMW landfilled.

Waste Management Group:	District Council:	BMW sent to landfill for scheme year 2005/06 (As reported)	BMW sent to landfill for scheme year 2006/07 (As reported)	BMW sent to landfill for scheme year 2007/08 (As reported)	% Difference between 06/07 and 07/08 scheme years	% Difference between 05/06 and 07/08 scheme years
ARC21	Antrim Borough Council	12,635	12,402	13,417	7.57%	6.19%
	Ards Borough Council	25,851	25,046	24,701	-1.40%	-4.45%
	Ballymena Borough Council	19,355	18,439	17,990	-2.50%	-7.05%
	Belfast City Council	106,509	96,063	89,939	-6.81%	-15.56%
	Carrickfergus Borough Council	14,935	14,116	11,802	-19.61%	-20.98%
	Castlereagh Borough Council	15,496	14,450	13,882	-4.09%	-10.42%
	Down District Council	17,262	17,382	19,096	8.98%	10.62%
	Larne Borough Council	11,345	10,259	9,769	-5.02%	-13.89%
	Lisburn City Council	37,242	34,186	30,412	-12.41%	-18.34%
	Newtownabbey Borough Council	27,599	28,024	26,488	-5.80%	-4.03%
	North Down Borough Council	28,503	25,257	23,239	-8.68%	-18.47%
Arc21 – Total:		316,732	295,622	280,735	-5.30%	-11.37%
NWRWMG	Ballymoney Borough Council	8,119	8,724 ¹	8,048	-8.40%	-0.87%
	Coleraine Borough Council	22,604	23,411 ²	21,203	-10.41%	-6.20%
	Derry City Council	27,909	33,509	31,900	-5.04%	14.30%
	Limavady Borough Council	8,016	9,200	9,304	1.12%	16.07%
	Magherafelt District Council	10,445	10,977	10,354	-6.02%	0.87%
	Moyle District Council	6,043	5,739	5,211	-10.13%	-13.77%
	Strabane District Council	12,345	12,697	12,743	0.36%	3.22%
NWRWMG – Total:		95,481	104,258	98,763	-5.56%	3.44%
SWaMP	Armagh City & District Council	14,296	13,715	12,255	-11.91%	-14.28%
	Banbridge District Council	10,213	9,110	9,753	6.59%	-4.50%
	Cookstown District Council	10,402	9,977	9,184	-8.85%	-11.71%
	Craigavon Borough Council	27,624	24,191	24,657	1.89%	-10.74%
	Dungannon & South Tyrone Borough Council	16,694	16,223	15,386	-5.44%	-7.84%
	Fermanagh District Council	21,740	21,117	21,209	0.43%	-2.44%
	Newry & Mourne District Council	28,105	27,608	26,259	-5.14%	-6.57%
	Omagh District Council	16,722	13,894	12,004	-15.74%	-28.21%
SWaMP – Total:		145,796	135,835	130,706	-3.95%	-10.35%
Northern Ireland – Total:		558,009	535,715	510,205	-5%	-8.57%

¹ Includes 126 allowances transferred to Coleraine Borough Council

² Includes 126 allowances transferred from Ballymoney Borough Council

Figure 3: Comparison of BMW to landfill by Northern Ireland District Councils by NILAS Scheme Year



5.1 Looking Forward to the first Landfill Directive Target Year 09/10

If we assume the total amount of BMW landfilled remains constant then Northern Ireland as a whole in 2009/10 would have a deficit of allowances of 40,205 tonnes, see table 5 and figure 3.

The WMGs would have the following deficits:

- arc21 28,855 tonnes
- NWRWMG 9,480 tonnes
- SWaMP 1,870 tonnes

However, the reduction in BMW sent to landfill should continue to decrease as the WMGs continue to implement their Waste Management Plans.

To achieve the Landfill Directive target it will be necessary to:

1. Increase the diversion of BMW from landfill;
2. Reduce the amount of municipal waste generated;
3. Adopt a combination of both these options.

The municipal waste arisings decreased by 0.28% between 2006/07 and 2007/08. The municipal waste recycling rate increased from 25.54% to 28.48% in the same period. This equates to an additional amount of almost 34,471 tonnes of waste sent for recycling. However, this also includes non-biodegradable fractions.

5.2 Northern Ireland Waste Compositional Study 2007/08

NIEA as Monitoring Authority for the Landfill Allowance Scheme (Northern Ireland) Regulations 2004 (NILAS) had an obligation under regulation 9(2) to keep under review the assumed amount of biodegradable waste in collected municipal waste.

Regulation 12(2) deemed the biodegradable content of collected municipal waste to be 71%. The deemed percentage had been determined by the Northern Ireland Waste Characterisation Study conducted by NI2000 in 2000.

It had been felt for a period of time that the findings of the NI2000 study ought to be reviewed in light of the introduction of wheeled bin collections and extensive recycling schemes by district councils. Additionally, it was felt that account should also be taken of civic amenity site wastes to give a more comprehensive analysis. The original study only considered the content of residual waste from household kerbside collections and excluded recyclable materials.

NIEA was also keen to undertake an analysis specific to Northern Ireland which would be beneficial to district councils working in partnership through the waste management groups. The determination of the biodegradable content in collected municipal waste would also be useful in the specification of new plant and infrastructure to assist Northern Ireland in meeting the EU Landfill Directive targets through NILAS.

In September 2007 RPS Consulting Engineers were engaged by NIEA to conduct the waste analysis of six district councils. The councils sampled were Belfast City Council, Lisburn City Council, Ards Borough Council, and Castlereagh Borough Council in arc21; Derry City Council in NWRWVG; and Newry and Mourne District Council in SWaMP.

The results of the study were published on the NIEA website in February 2008. The main finding of the study was the determination that 64% was a representative figure for the biodegradable content of collected municipal waste.

An amended version of the study was published on the NIEA website in May 2008 to take into account the issue of confidence ranges which had not been calculated as part of the study. As there was variability in samples the confidence range for the 64% value was liable to be in the range of zero to infinity. Therefore, this calculation was not considered to add additional value to the report.

The study can be accessed via the NIEA website from the following links:

Executive summary:

www.ni-environment.gov.uk/waste_compositional_study_2007-08_executive_summary.pdf

Full study:

www.ni-environment.gov.uk/waste_compositional_study_2007-08_full_report.pdf

5.3 The Landfill Allowances Scheme (Amendment) Regulations (Northern Ireland) 2008

In September 2008 PEPG issued a consultation paper on proposed amendments to the NILAS Regulations with a view to amending Regulation 12 (2)(a) from 71% to 64% in relation to the deemed biodegradable content in collected municipal waste. The consultation is for a period of twelve weeks and envisages the amended regulations coming into operation on 1st April 2009 (www.doeni.gov.uk/draft_con.doc.pdf).

The change in the BMW content of collected municipal waste should enable Northern Ireland's district councils to meet the targets of the first target year of the Landfill Directive as illustrated in figure 4.

Table 7: Landfill Allowance Utilisation for first Landfill Directive Target Year (assuming amount of BMW landfilled remains constant)

Waste Management Group	District Council	BMW (@71%) landfilled in 2007/08 (tonnes)	2009/2010 allocation	Balance (tonnes)	% surplus / deficit
arc21	Antrim BC	13,417	13,605	188	1.38%
	Ards BC	24,701	20,798	-3,903	-18.77%
	Ballymena BC	17,990	16,384	-1,066	-9.80%
	Belfast CC	89,939	72,218	-17,721	-24.54%
	Carrickfergus BC	11,802	10,705	-1,097	-10.25%
	Castlereagh BC	13,882	17,987	4,105	22.82%
	Down DC	19,096	18,368	-728	-3.97%
	Larne BC	9,769	8,446	-1,323	-15.67%
	Lisburn BC	30,412	30,233	-179	-0.59%
	Newtownabbey BC	26,488	22,057	-4,431	-20.09%
	North Down BC	23,239	21,081	-2,158	-10.23%
	Arc21	280,735	251,880	-28,855	-11.46%
NWRWMG	Ballymoney BC	8,048	7,960	-88	-1.11%
	Coleraine BC	21,203	15,395	-5,808	-37.73%
	Derry CC	31,900	29,568	-2,332	-7.89%
	Limavady BC	9,304	9,521	217	2.28%
	Magherafelt BC	10,354	11,545	1,191	10.32%
	Moyle DC	5,211	4,569	-642	-14.04%
	Strabane DC	12,743	10,725	-2,018	-18.82%
	NWRWMG	98,763	89,283	-9,480	-10.62%
SWaMP	Armagh C&DC	12,255	15,420	3,165	20.53%
	Banbridge DC	9,753	12,324	2,571	20.86%
	Cookstown DC	9,184	9,356	172	1.83%
	Craigavon BC	24,657	22,928	-1,729	-7.54%
	Dungannon & South Tyrone BC	15,386	13,580	-1,806	-13.30%
	Fermanagh DC	21,209	16,229	-4,980	-30.68%
	Newry & Mourne	26,259	25,240	-1,019	-4.04%
	Omagh DC	12,004	13,760	1,756	12.76%
	SWaMP	130,706	128,837	-1,870	-1.45%
	Northern Ireland:	510,205	470,000	-40,205	-8.55%

Figure 4 shows a comparison between BMW landfilled (@71%) and progress towards 2009/ 10 targets.

Figure 4

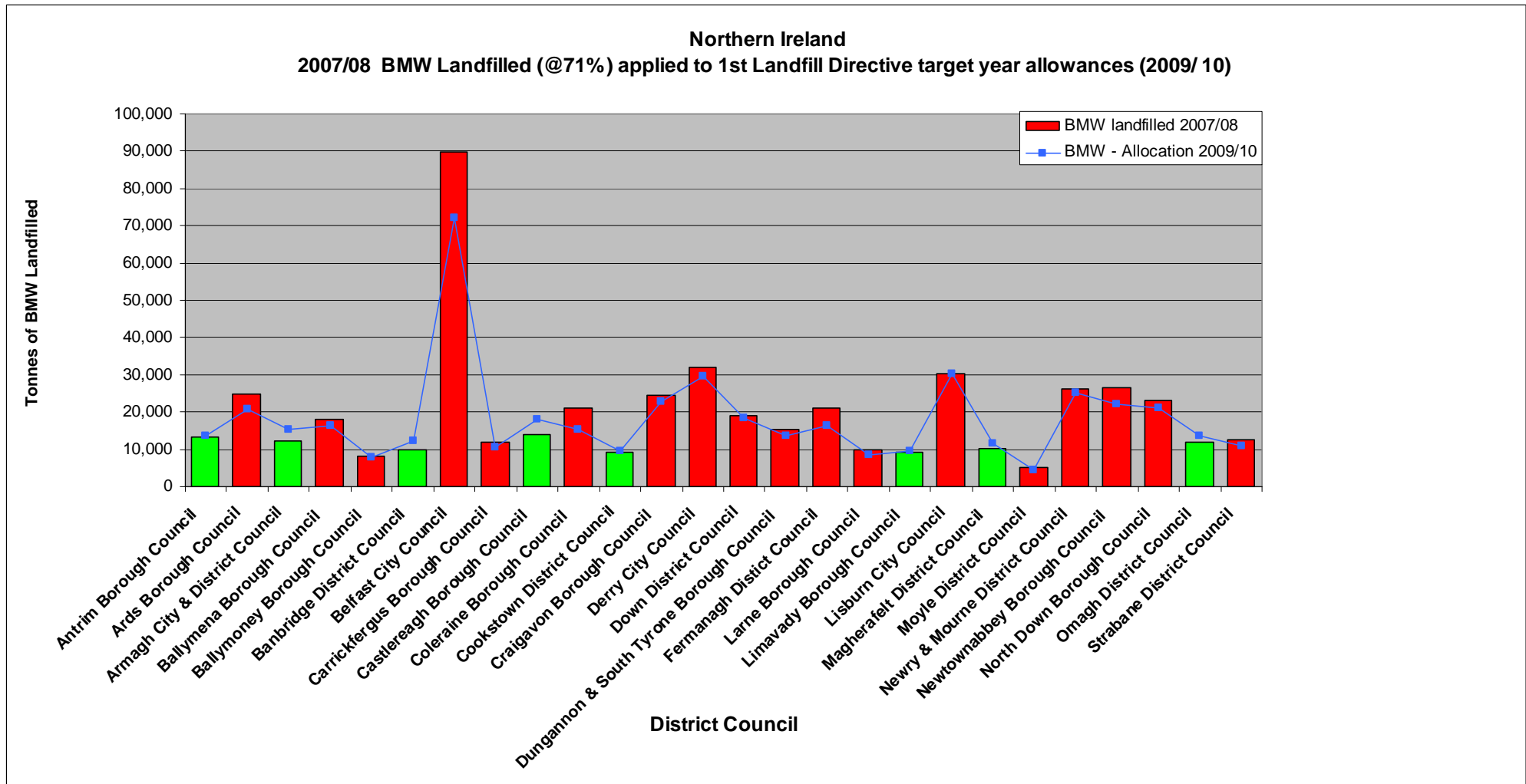
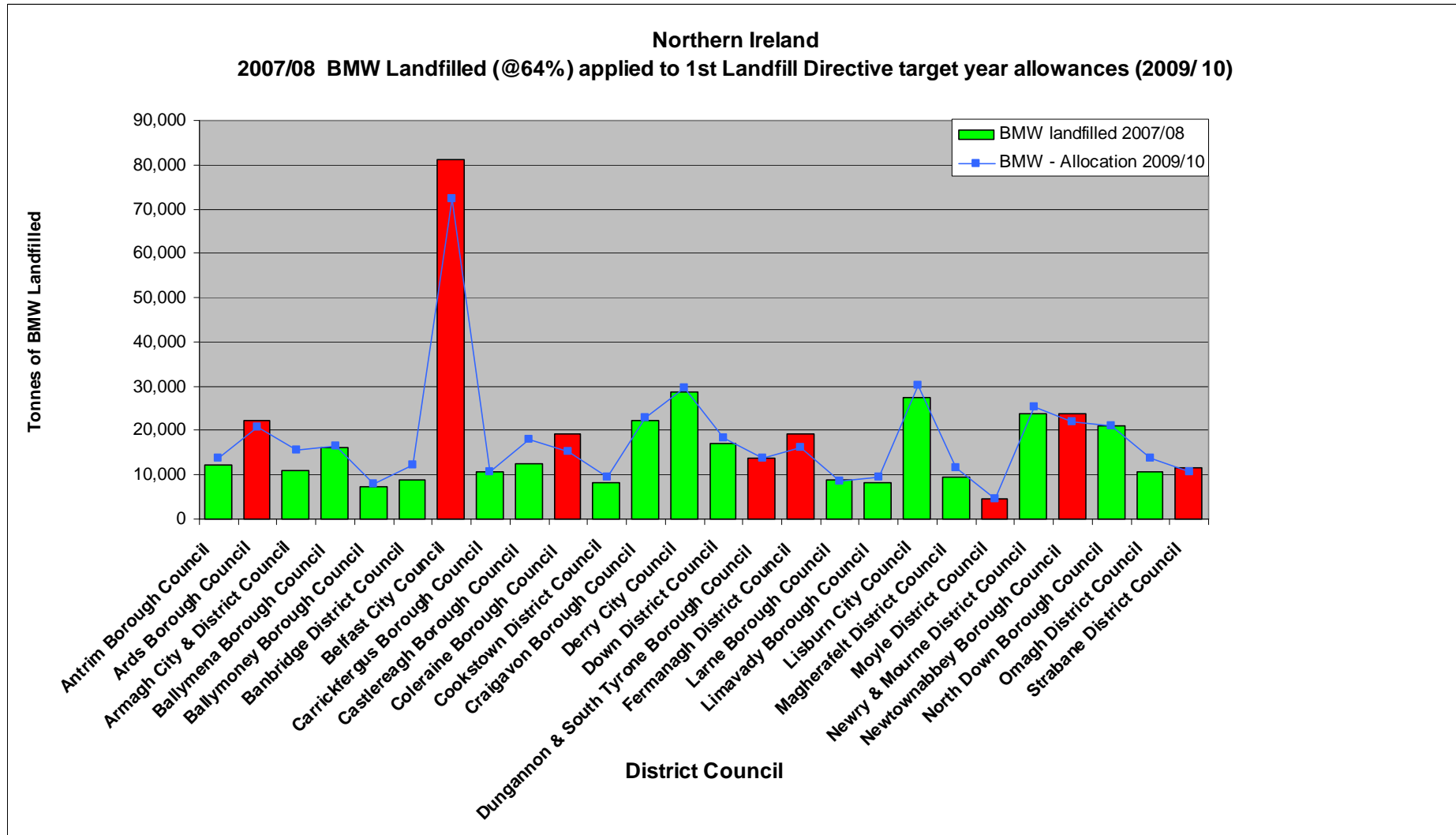


Figure 5 shows a comparison between BMW landfilled (@64%) and progress towards 2009/ 10 targets.

Figure 5



Annex A: Table: Northern Ireland - NILAS progress - 2nd Scheme Year (06/07) Regulation 14 Final Reconciliation

Waste Management Group:	District Council:	2007/08 Allocation	BMW sent to landfill for scheme year 2007/08 (As reported)	BMW sent to landfill as % of 2007/08 allocation
arc21	Antrim Borough Council	18,535	13,417	72.39%
	Ards Borough Council	28,280	24,701	87.34%
	Ballymena Borough Council	22,344	17,990	80.51%
	Belfast City Council	99,985	89,939	89.95%
	Carrickfergus Borough Council	14,549	11,802	81.12%
	Castlereagh Borough Council	24,745	13,882	56.10%
	Down District Council	24,878	19,096	76.76%
	Larne Borough Council	11,575	9,769	84.39%
	Lisburn City Council	41,275	30,412	73.68%
	Newtownabbey Borough Council	30,184	26,488	87.75%
	North Down Borough Council	28,894	23,239	80.43%
ARC21 – Total:		345,244	280,735	81.31%
NWRWMG	Ballymoney Borough Council	10,595 ¹	8,048	75.96%
	Coleraine Borough Council	21,203 ²	21,203	100.00%
	Derry City Council	40,253	31,900	79.25%
	Limavady Borough Council	12,860	9,304	72.35%
	Magherafelt District Council	15,597	10,354	66.38%
	Moyle District Council	6,207	5,211	83.96%
	Strabane District Council	14,591	12,743	87.34%
NWRWMG – Total:		121,307	98,763	81.42%
SWaMP	Armagh City & District Council	20,964	12,255	58.46%
	Banbridge District Council	16,577	9,753	58.83%
	Cookstown District Council	12,678	9,184	72.44%
	Craigavon Borough Council	31,141	24,657	79.18%
	Dungannon & South Tyrone Borough Council	18,431	15,386	83.48%
	Fermanagh District Council	22,088	21,209	96.02%
	Newry & Mourne District Council	34,127	26,259	76.94%
	Omagh District Council	18,678	12,004	64.27%
SWaMP – Total:		174,684	130,706	74.82%
Northern Ireland – Total:		641,234	510,205	79.57%

¹ Includes 126 allowances transferred to Coleraine Borough Council

² Includes 126 allowances transferred from Ballymoney Borough Council

ANNEX B: Northern Ireland Landfill Allowance Scheme Allocations

Northern Ireland Landfill Allowances Scheme: Landfill Allowance Allocation (tonnes)

DC Allowances	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Antrim BC	17,288	18,936	18,535	18,138	13,605	13,607	13,490	9,261	8,846	8,430	8,014	7,596	7,184	6,771	6,358
Ards BC	31,842	28,862	28,280	27,695	20,798	20,828	20,686	14,230	13,617	13,002	12,382	11,758	11,119	10,480	9,841
Ballymena BC	21,453	22,835	22,344	21,849	16,384	16,380	16,242	11,156	10,656	10,156	9,657	9,158	8,660	8,162	7,665
Belfast CC	116,877	102,992	99,985	97,033	72,218	71,692	70,573	48,123	45,652	43,218	40,817	38,445	36,355	34,266	32,177
Carrickfergus BC	17,114	14,843	14,549	14,252	10,705	10,724	10,652	7,328	7,011	6,691	6,371	6,049	5,720	5,392	5,063
Castlereagh BC	23,103	25,385	24,745	24,097	17,987	17,907	17,673	12,079	11,488	10,900	10,317	9,740	9,211	8,682	8,152
Down DC	25,736	25,344	24,878	24,410	18,368	18,432	18,345	12,645	12,127	11,604	11,078	10,548	9,974	9,401	8,828
Larne BC	13,526	11,862	11,575	11,289	8,446	8,426	8,336	5,710	5,441	5,173	4,908	4,645	4,392	4,140	3,888
Lisburn CC	48,719	42,207	41,275	40,345	30,233	30,215	29,943	20,551	19,621	18,693	17,767	16,841	15,926	15,011	14,096
Newtownabbey BC	31,180	30,901	30,184	29,467	22,057	22,014	21,787	14,934	14,240	13,544	12,852	12,161	11,500	10,839	10,178
North Down BC	33,588	29,606	28,894	28,186	21,081	21,030	20,807	14,259	13,593	12,930	12,271	11,613	10,982	10,350	9,719
Arc21	380,427	353,773	345,244	336,762	251,880	251,256	248,533	170,277	162,291	154,344	146,435	138,554	131,024	123,493	115,964
Armagh C&DC	17,790	21,394	20,964	20,531	15,420	15,441	15,334	10,546	10,089	9,632	9,172	8,710	8,236	7,763	7,290
Banbridge DC	12,896	16,824	16,577	16,325	12,324	12,412	12,395	8,573	8,247	7,915	7,577	7,235	6,842	6,449	6,055
Cookstown DC	11,681	12,920	12,678	12,435	9,356	9,387	9,344	6,440	6,175	5,908	5,638	5,367	5,075	4,784	4,492
Craigavon BC	30,961	31,763	31,141	30,516	22,928	22,972	22,825	15,708	15,037	14,365	13,689	13,011	12,304	11,597	10,890
Dungannon & South Tyrone BC	18,375	18,793	18,431	18,066	13,580	13,614	13,534	9,320	8,928	8,536	8,140	7,742	7,321	6,901	6,480
Fermanagh BC	21,041	22,557	22,088	21,619	16,229	16,249	16,138	11,101	10,623	10,144	9,663	9,183	8,684	8,185	7,686
Newry & Mourne DC	28,720	34,731	34,127	33,518	25,240	25,353	25,251	17,422	16,721	16,012	15,297	14,576	13,784	12,992	12,200
Omagh BC	19,155	19,047	18,678	18,305	13,760	13,793	13,711	9,442	9,043	8,642	8,241	7,837	7,411	6,985	6,559
SWaMP	160,619	178,028	174,684	171,316	128,837	129,221	128,531	88,551	84,864	81,153	77,417	73,661	69,658	65,654	61,651
Ballymoney BC	12,968	10,889	10,721	10,550	7,960	8,010	7,992	5,525	5,311	5,094	4,874	4,652	4,399	4,146	3,894
Coleraine BC	28,812	21,586	21,077	20,569	15,395	15,367	15,209	10,426	9,941	9,458	8,975	8,496	8,034	7,572	7,111
Derry CC	36,273	41,103	40,253	39,397	29,568	29,596	29,375	20,192	19,309	18,423	17,535	16,646	15,742	14,837	13,932
Limavady BC	12,255	13,074	12,860	12,637	9,521	9,568	9,536	6,582	6,317	6,050	5,777	5,503	5,204	4,905	4,606
Magherafelt BC	14,230	15,863	15,597	15,326	11,545	11,603	11,563	7,983	7,668	7,347	7,023	6,694	6,331	5,967	5,603
Moyle DC	6,889	6,334	6,207	6,081	4,569	4,580	4,552	3,134	3,001	2,866	2,733	2,598	2,457	2,316	2,174
Strabane DC	17,412	14,896	14,591	14,287	10,725	10,736	10,659	7,330	7,012	6,692	6,372	6,052	5,723	5,394	5,065
NWRWMG	128,839	123,745	121,307	118,847	89,283	89,460	88,886	61,172	58,559	55,931	53,290	50,641	47,889	45,136	42,384
Total Northern Ireland	669,885	655,545	641,235	626,925	470,000	469,937	465,950	320,000	305,714	291,428	277,142	262,856	248,570	234,284	220,000

ANNEX C:

WasteDataFlow

Method of calculating Mass Balance from WasteDataFlow for a NI District Council



“Our aim is to protect and conserve the natural and built environment and to promote its appreciation for the benefit of present and future generations.”